

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

- 1-22. (previously cancelled)
23. (previously presented) An isolated polynucleotide comprising:
  - (a) a nucleotide sequence encoding a polypeptide having cellulose synthase activity, wherein the polypeptide has an amino acid sequence of at least 80% sequence identity, based on the Clustal V method of alignment, when compared to SEQ ID NO:30, or
  - (b) a complement of the nucleotide sequence, wherein the complement and the nucleotide sequence consist of the same number of nucleotides and are 100% complementary.
24. (previously presented) The polynucleotide of Claim 23, wherein the amino acid sequence of the polypeptide has at least 85% sequence identity, based on the Clustal V method of alignment, when compared to SEQ ID NO:30.
25. (previously presented) The polynucleotide of Claim 23, wherein the amino acid sequence of the polypeptide has at least 90% sequence identity, based on the Clustal V method of alignment, when compared to SEQ ID NO:30.
26. (previously presented) The polynucleotide of Claim 23, wherein the amino acid sequence of the polypeptide has at least 95% sequence identity, based on the Clustal V method of alignment, when compared to SEQ ID NO:30.
27. (previously presented) The polynucleotide of Claim 23, wherein the amino acid sequence of the polypeptide comprises SEQ ID NO:30.
28. (previously presented) The polynucleotide of Claim 23 wherein the nucleotide sequence comprises SEQ ID NO:29.
29. (previously presented) A vector comprising the polynucleotide of Claim 23.
30. (previously presented) A recombinant DNA construct comprising the polynucleotide of Claim 23 operably linked to at least one regulatory sequence.
31. (previously presented) A method for transforming a cell, comprising transforming a cell with the polynucleotide of Claim 23.
32. (previously presented) A cell comprising the recombinant DNA construct of Claim 30.

33. (previously presented) A method for producing a plant comprising transforming a plant cell with the polynucleotide of Claim 23 and regenerating a plant from the transformed plant cell.

34. (previously presented) A plant comprising the recombinant DNA construct of Claim 30.

35. (previously presented) A seed comprising the recombinant DNA construct of Claim 30.